

associated with each of a group of items, detecting where within the group of items a desired item should be placed, and providing an indication to the user of that location.

27. (Amended) The method of claim 26, wherein step (a) comprises interrogating an RFID element associated with a location.

Remarks

I. Claim Objections

The Examiner objected to certain informalities in the claims, which are not associated with the patentability of the claimed invention. Applicants have amended those claims to remove the bases for the objection.

II. Rejection of Claims Under 35 U.S.C. 102(b)

A. Claims 1, 2, 4 Through 6, 23, 36 Through 41 and 43 Through 47:

The Examiner rejected claims 1, 2, 4 through 6, 23, 36 through 41 and 43 through 47 under 35 U.S.C. 102(b) as being anticipated by EP 0 494,117 (Cannon et al.).

Applicants believe that the Office Action contains a typographical error, and that it was supposed to refer to EP 0 794,507 (Cannon et al.), and will respond on that basis. If Applicants' understanding is incorrect, then an opportunity to further respond after a non-final office action is respectfully requested.

Cannon et al. discloses an object locator system in which an electronic tag is attached to an object, and the response code that the tag emits is recorded. "To locate the object, the response code is entered into the interrogator. The interrogator sends a signal that causes the tag to emit a sound." Abstract; col. 1, lines 27-30; 42-49; col. 3, lines 47-49. This system and method for locating a specified item is different from the one claimed in the claims rejected over Cannon et al.

Claim 1 claims an RFID device comprising "an indicator for indicating information regarding one or both of (i) a class of materials to which the item belongs, and (ii) a desired location for that item." The system described in Cannon et al. does

* not include an RFID device with such an indicator. Specifically, Cannon et al. does not indicate, for a particular item, the class of materials to which that item belongs, nor does it indicate the desired location for that item. As to the latter point, Cannon et al. appears to enable the user to determine the actual location of a tagged item, but not the desired location for such an item. This is an important distinction, because it is useful in, for example, a library environment to be able to interrogate an RFID-tagged item and then see an indication of where that item belongs within the library. Because this claimed feature is not disclosed in Cannon et al., Applicants submit that claim 1 is patentable over Cannon et al. under 35 U.S.C. 102(b). Claims 2, 4, 5, and 6 all properly depend from allowable claim 1, and are therefore in condition for allowance.

Claim 23, as amended to clarify what was meant by "passing over" a group of items, claims a "method of using a handheld RFID device for reading information from an RFID element, comprising the steps of interrogating the RFID tags associated with each of a group of items, detecting where within the group of items a desired item should be placed, and providing an indication to the user of that location." Cannon et al. does not disclose interrogating electronic tags associated with each one of a group of items, and then determining and indicating to a user where a desired item should be located. Instead, Cannon et al. describes a way to determine the actual location (again, not the desired location) of a particular item that is already stored in a storage area. Accordingly, claim 23, both before and after the amendment made here, is allowable over Cannon et al. under 35 U.S.C. 102(b).

Claim 36 claims a method of verifying the order of RFID-tagged items in a free-shelving system, comprising the steps of: (a) interrogating RFID tags associated with three items of interest using an RFID device; (b) determining from the information obtained whether the item of interest that is located between the other two items belongs between the other two items; and (c) providing an appropriate signal. Again, the subject matter of this claim is not disclosed in Cannon et al., in which an *interrogator locates a single tagged item. In the claimed invention, three RFID-tagged items are interrogated, and then it is determined whether the item of interest belongs between the other two items. This is useful, again for example in a library environment, in determining whether library materials are in the proper order on a shelf. Cannon et al. does not appear to describe shelf-order at all, and does not describe the claimed method. Claim 36 is therefore allowable over Cannon et al. under 35 U.S.C. 102(b), as are dependent claims 37 through 39.

Claim 40 reads as follows:

40. A method of locating an item of interest associated with an RFID element among a larger group of items each associated with an RFID element, comprising the steps of:

- (a) providing a card having an RFID element;
- (b) transmitting information to the card and storing that information in the RFID element;
- (c) positioning RFID card readers at positions near the item of interest;
- (d) interrogating the RFID card with the RFID card reader; and
- (e) providing an indication of the location of the item of interest relative to the location of the RFID card reader.

A method of the type claimed in claim 40 would enable a user to load a card with information regarding an item that the user wishes to locate, such as a book or a file, get close to the area where the item may be stored, interrogate the card, and then obtain information regarding the location of the item relative to the location of the card reader. In this embodiment, the reader reads the RFID tag associated with the card, and then provides information to a user. No such system is believed to be disclosed in Cannon et al., in which the reader interrogates the RFID-tagged item that the user is interested in locating. Cannon et al. does not even disclose an RFID card of the type claimed in claim 40. Accordingly, claim 40 is allowable over Cannon et al., as are dependent claims 41 and 43, under 35 U.S.C. 102(b).

Claims 44 through 47 have been canceled.

B. Claims 7, 10, and 12: The Examiner rejected claims 7, 10, and 12 under 35 U.S.C. 102(b) as being anticipated by U.S. Patent No. 5,153,842 (Dlugos, Sr. et al.). Dlugos, Sr. et al. describes, in the passage cited by the Examiner, a system in which a parcel can be placed on a scale, a bar code scanned by a bar code scanner, information from the bar code provided to a computer, and a manifest created that includes information related to the parcel.

Claim 7 has been amended to recite, specifically, an intended application of a method according to the present invention. As amended, claim 7 reads as follows:

7. A method of using an RFID device, comprising the steps of:

- (a) providing a library material, the library material having an optical bar code;

- (b) interrogating the optical bar code associated with the library material to obtain information about the library material;
- (c) determining whether the book belongs to a certain library; and
- (d) storing that information on an RFID element to create an RFID tag for the library material.

This method, as described in the present specification at page 22, is useful for converting bar-coded library materials to RFID-tagged library materials. Step (c) – that of determining whether the library material belongs to a certain library – is not disclosed in Dlugos et al., and accordingly Dlugos, Sr. et al. cannot anticipate claim 7. Dlugos, Sr. et al. also does not disclose step (a) – that of providing a library material having an optical bar code. Because Dlugos, Sr. et al. neither discloses nor suggests at least two elements of claim 7, Applicants submit that claim 7 is allowable under 35 U.S.C. 102(b) over Dlugos, Sr. et al. Dependent claims 10 and 12 are similarly in condition for allowance because they depend from an allowable base claim.

C. Claim 13: The Examiner rejected claim 13 under 35 U.S.C. 102(b) over U.S. Patent No. 5,568,858 (Guthrie). Guthrie discloses a system for marking cargo containers with electronic tags. Each container can then be located among other containers by an interrogator unit. Information can also be provided regarding the contents of the container.

The Examiner cited one lengthy portion of Guthrie, which doesn't seem to disclose or suggest the invention of claim 13, and one specific paragraph:

“By performing the self inventory command (as illustrated in FIG. 4 and described later in the disclosure), a master electronic tag will have in its memory serial numbers, inventory contents, and any other desired information for all of the tags slaved to it. By including [in] the master electronic tags memory, a listing of the order of the slave electronic tags, the relative location of each slave electronic tag (or the associated container) can be determined. In this manner, by communicating with the master electronic tags, the location and contents of all of the electronic tags may be determined (as well as the contents of the containers associated with all of the electronic tags.”

Guthrie, col. 7, lines 3-15. Applicants submit that there is a typographical error in the foregoing paragraph, and that it should include the word “in” in the second sentence, as

shown. Whether or not that word is included, the meaning of the paragraph seems clear. A list of the slave tags is included in the memory of the master tag, and that enables the master tag to determine the location of the slave tag or its container. What Guthrie does not disclose, however, is the subject matter of claim 13. It does not disclose interrogating RFID-tagged items to determine their identity, and then organizing the identification information in a predetermined order, as required in claim 13. It also does not disclose providing an output indicative of that order, as is also required in claim 13. Instead, a master tag in Guthrie simply has a stored list of slave tags. This does not disclose or suggest the invention of claim 13, which Applicants respectfully submit is parentable under 35 U.S.C. 102(b) over Guthrie. Reconsideration of the rejection is requested.

D. Claims 17 Through 19: The Examiner rejected claims 17 through 19 under 35 U.S.C. 102(b) as being anticipated by U.S. Patent No. 5,739,765 (Stanfield et al.). Claims 17 and 18 have been canceled without prejudice, and the rejection of claim 19 over Stanfield et al. is traversed for at least the following reasons.

Claim 19 has been amended to include the limitations of claims 18 and 17, from which it previously depended. Accordingly it is of the same scope as original claim 19, and this amendment is not a narrowing amendment. Amended claim 19 continues to disclose and claim a method for identifying an item that within a class of items that belong in the same section of a library from among a larger group of items. Stanfield et al. does not disclose this method, and specifically does not disclose interrogating a larger group of items to locate once that belong in the same section of a library, and claim 19 is therefore believed to be patentable under 35 U.S.C. 102(b) over Stanfield et al. Reconsideration of the rejection of claim 19 is therefore respectfully requested.

E. Claims 26, 27, 29, 34, and 35: The Examiner rejected claims 26, 27, 29, 34, and 35 under 35 U.S.C. 102(b) over U.S. Patent No. 5,786,764 (Engellenner). Engellenner discloses a system to locate an object, in which an item identifier is transmitted through beacons and, if located, the item's response is received by the beacon and transmitted back to a host computer. The computer thus knows where the beacon is located that received the response from the item, and thus, approximately, the location of the item itself. This is not the invention described in claims 26, 27, 29, 34 and 35.

Claim 26 claims a method of using an RFID device for identifying and locating items having an RFID element associated therewith, in which information is provided to the RFID device to identify a location, items are interrogated, and then the items are associated with the identified location. This may be useful, for example, if a new item is to be placed in a particular location in a storage area. The location information can be provided to an RFID reader, then one or more items can be ~~*~~interrogated, and then the two can be correlated to each other. Engellenner does not disclose or suggest such a process, but instead describes a system in which the system can poll for either a specific item, or all items. Accordingly, claim 26 is patentable under 35 U.S.C. 102(b) over Engellenner, and reconsideration of the rejection is respectfully requested. Claims 27, 29, 34, and 35 all depend from allowable claim 26, and therefore are also in condition for allowance for at least the same reasons as claim 26. Reconsideration of the rejection of those claims is therefore also respectfully requested.

F. Claims 48 and 49: Claims 48 and 49 have been canceled without prejudice.

G. Claim 50: Claim 50 has been canceled.

H. Claims 20 Through 22: The Examiner rejected claims 20 through 22 under 35 U.S.C. 102(e) as being anticipated by U.S. Patent No. 5,963,134 (Bowers et al.). Bowers et al. discloses an inventory system, of the type that may be used in a library, in which articles are provided with RFID tags. In one of the passages cited by the Examiner, Bowers et al. states that:

"Each of the articles 22 have a radio frequency identification (RFID) tag, sometimes referred to as an "intelligent tag" attached thereto. . . . When the RFID tags are properly interrogated, they return unique information which can be used to determine the identity of the article 22 and its proper location in the library."

Col. 7, lines 32-40 (two sentences omitted). The passages cited in column 8 appear not to be particularly relevant to the invention described in claims 20 through 22.

Claim 20 claims a method of using an RFID device, including the steps of interrogating an item having an RFID tag, inputting information to the device to describe a location, determining whether the interrogated item belongs at the location, and providing an appropriate signal. Bowers et al. does not appear to disclose the steps

of the claimed method. Based on the paragraph cited by the Examiner, the RFID tags of Bowers et al. return information that can be used to determine the identity and location of an article 22. Bowers does not disclose or suggest that a tag is interrogated, ~~X~~ location information is input, a determination of whether the item belongs at the location is made, and an indication is provided. Accordingly, claim 20 is believed to be patentable under 35 U.S.C. 102(b) over Bowers et al. Dependent claims 21 and 22, which depend from allowable claim 20, are similarly in condition for allowance. Applicants note in particular that there appears to be no disclosure of the subject matter of claim 21 in Bowers et al.

III. Rejection of Claims Under 35 U.S.C. 103

A. Claim 3: Claim 3 was rejected under 35 U.S.C. 103(a) as being unpatentable over Cannon et al. in view of Bowers et al. Each of these references was described above, and neither includes the features of independent claim 1, from which claim 3 depends. Specifically, neither provides information regarding a class of items to which an interrogated item belongs, or regarding a desired location for that item. Because claim 1 is patentable over Cannon et al. and Bowers et al., either taken individually or together, claim 3 is therefore also patentable over those references. Reconsideration of the rejection of claim 3 is therefore respectfully requested.

B. Claims 8 and 9: Claims 8 and 9 were rejected under 35 U.S.C. 103(a) as being unpatentable over Dlugos, Sr. et al. in view of Cannon Jr. et al. Claim 7, from which claims 8 and 9 depend, was amended as shown above, and as amended is allowable over Dlugos, Sr. et al. Cannon Jr. et al. does not disclose or suggest the elements of claim 7 that are missing from Dlugos, Sr. et al., and thus claim 7 is parentable over the combination. Accordingly claims 8 and 9 are also patentable over Dlugos, Sr. et al. in view of Cannon Jr. et al. because they depend from an allowable independent claim.

C. Claim 11: Claim 11 was rejected under 35 U.S.C. 103(a) as being unpatentable over Dlugos, Sr. et al. in view of Bowers et al. As with claims 8 and 9 above, neither Dlugos, Sr. et al. nor Bowers et al. disclose the limitations of independent claim 7. Accordingly claim 11, which properly depends from allowable independent claim 7, is similarly in condition for allowance.

D. Claims 14 Through 16, 24, and 25: Claims 14 through 16, 24 and 25 were rejected under 35 U.S.C. 103(a) as being unpatentable over Guthrie et al. in view

of U.S. Patent No. 5,640,002 (Ruppert et al.). Guthrie et al. was described above. Ruppert et al. describes a combination bar code/ RFID reader of the type that would help a patron in a grocery store. The device enables a shopper to create a personalized shopping list from a master list. When the shopper locates an item on the list, the item is checked off the list. There is no apparent disclosure of the method of claim 13, in which items are interrogated, and then are placed in an order. Accordingly, claim 13 is patentable over Guthrie et al. in view of Ruppert et al. under 35 U.S.C. 103(a), and dependent claims 14 through 16 are similarly in condition for allowance.

Claim 24 claims a method of using an RFID device, comprising the steps of:

- (a) providing a database of items;
- (b) providing an order in which such items are to be selected;
- (c) providing an indication of the next item on the list to be selected;
- (d) interrogating an RFID element associated with the item indicated in step (c) using the RFID device; and
- (e) providing an indication of the next item on the list to be selected.

Neither Guthrie et al. nor Ruppert et al. appears to disclose providing an order in which items are to be selected, providing an indication of the next item on the list to be selected, interrogating an RFID element associated with that next item, and providing an indication of the next item of the list to be selected. The device of Ruppert et al., to the extent relevant at all, is simply a list from which items can be checked off, as with a regular shopping list. No order in which the items should be selected is provided. Accordingly, claim 24 is parentable over Guthrie et al. and Ruppert et al., both individually and in combination, under 35 U.S.C. 103(a). Claim 25, which depends from independent claim 24, is therefore similarly in condition for allowance.

E. Claim 28: Claim 28 was rejected under 35 U.S.C. 103(a) as being unpatentable over Engellenner in view of Guthrie et al. Each was discussed above, and neither discloses or suggests the subject matter of independent claim 26, from which claim 28 depends. Claim 28 is therefore patentable over the applied prior art for at least that reason. Furthermore, nothing in either reference is believed to disclose or suggest arranging and interrogating the items in a series, so that the RFID device can determine the location of one item with respect to other items, which is the subject of claim 28. In effect, claim 28 enables one to "teach" an RFID reader the order of items,

which can be useful when the items are later interrogated to determine whether they are in, or out of, the appropriate order. Claim 28 is therefore patentable in its own right over Engellenner, Guthrie et al, or any combination of the two references. Reconsideration of the rejection is therefore respectfully requested.

F. Claims 30, 32 and 33: Claims 30, 32 and 33 were rejected under 35 U.S.C. 103(a) as being unpatentable over Engellenner in view of U.S. Patent No. 6,074,156 (Frich). Engellenner was described above, and Frich discloses a library cart loading system in which the library cart is elevated at an angle relative to a placement device that places books on the cart. As noted above, independent claim 26, from which claims 30, 32 and 33 depend, is patentable over Engellenner at least because Engellenner does not disclose or suggest providing information to an RFID device to identify a location, interrogating items to determine the identity of the items, and associating the items with the location. Frich also does not disclose or suggest these features, and accordingly independent claim 26 is patentable over Engellenner and Frich, whether taken separately or together.

Dependent claims 30, 32 and 33 are patentable over Engellenner and Frich, whether taken separately or together, because they depend from allowable claim 26. Moreover, there appears to be no disclosure or suggestion in Frich or Engellenner of the subject matter of claims 30, 32 or 33. For example, there appears to be no disclosure or suggestion of passing an RFID device into or through a cart, or of a shelf having an antenna associated therewith. The Examiner's suggestion that it would be desirable to modify the references to meet those claims is unsupported by any suggestion in the references themselves. Accordingly, claims 30, 32 and 33 are not only patentable because they depend from an allowable base claim, but because they define separately patentable features that are not disclosed anywhere in the applied prior art. Reconsideration of the rejection is respectfully requested.

G. Claim 31: Claim 31 was rejected under 35 U.S.C. 103(a) as being unpatentable over Engellenner as modified by Frich, and further in view of U.S. Patent No. 5,708,423 (Ghaffari et al.). The Examiner indicated that Frich had been modified "as applied to claim 26," but that appears not to have been the case as claim 26 stands rejected only over Engellenner alone.

Claim 31 depends from claim 26, which is allowable over Engellenner in view of Frich for the reasons described above, but also further in view of Ghaffari et al. Ghaffari et al. does not disclose or suggest the subject matter of claim 26, which

may be said to be in the field of associating RFID tagged items with specified locations. None of the three applied references discloses or suggests the features of claim 26, and thus cannot disclose or suggest the features of dependent claim 31. Reconsideration of the rejection of claim 31 is therefore respectfully requested.

H. Claim 42: Claim 42 was rejected under 35 U.S.C. 103(a) as being unpatentable over Cannon et al. in view of EP 0 494,114 (Marsh et al.). Claim 42 depends from claim 40, which is patentable not only over Cannon et al. for the reasons presented above, but also over Cannon et al. in view of Marsh et al.. Marsh et al. does not disclose any of the features of claim 40 that are missing from Cannon et al., such as storing information on an RFID card, interrogating the RFID card with an RFID reader positioned near an item of interest, and providing an indication of the location of the item of interest relative to the RFID card reader. Claim 40 is therefore patentable under 35 U.S.C. 103(a) over Cannon et al. in view of Marsh et al. Claim 42, which depends from allowable claim 40, is therefore similarly in condition for allowance.

IV. Conclusion

All outstanding objections and rejections are believed to have been met and overcome, and reconsideration of all such objections and rejections are respectfully requested. If a telephonic conference with the Applicants' undersigned representative would be useful in resolving any remaining matters in this application, the Examiner is invited to contact the undersigned at 651-733-6750.

Respectfully submitted,



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7. (Amended) A method of using an RFID device, comprising the steps of:

(a) providing a library material, the library material having an optical bar code;

(b) interrogating [an] the optical bar code associated with [an item] the library material to obtain information about [that item] the library material;

(c) determining whether the book belongs to a certain library; and

[(b)][d] storing that information on an RFID element to create an RFID tag for the [item] library material.

10. (Amended) The method of claim 7, wherein the method further includes the step of (c) obtaining additional information about the [item] library material and storing that information on the RFID element.

11. (Amended) The method of claim 10, wherein the additional information is obtained from library automation vendor (LAV) software having a database including information about the [item] library material.

12. (Amended) The method of claim 10, wherein the additional information is obtained visually from the [item] library material, and is entered into the RFID device manually.

15. (Amended) The method of claim 14, wherein the operator can provide input to the display in order to control [it] the display.

19. (Amended) [The method of claim 18,] A method of identifying a specific item having an RFID element associated therewith from among a larger group of items also having RFID elements associated therewith, comprising the steps of:

(a) providing an RFID interrogation device with information identifying the specific item;

(b) interrogating the larger group of items; and

(c) providing a signal when the RFID device interrogates the RFID tag associated with the specific item;



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wherein the information provided in step (a) is information identifying a class of items, and step (c) comprises providing a signal when the RFID device interrogates an RFID tag associated with a specific item within that class; and wherein the class of items are items belonging in the same section of the library.

23. (Amended) A method of using a handheld RFID device for reading information from an RFID element, comprising the steps of [passing the device over] interrogating the RFID tags associated with each of a group of items, detecting where within the group of items a desired item should be placed, and providing an indication to the user of that location.

27. (Amended) The method of claim 26, wherein step (a) comprises interrogating an RFID element[s] associated with a location.